

Pinus ponderosa / Symphoricarpos albus Forest

COMMON NAME	Ponderosa Pine / Common Snowberry Forest
SYNONYM	Ponderosa Pine / Snowberry Forest
PHYSIOGNOMIC CLASS	Forest (I)
PHYSIOGNOMIC SUBCLASS	Evergreen forest (I.A)
PHYSIOGNOMIC GROUP	Temperate or subpolar needle-leaved evergreen forest (I.A.8)
PHYSIOGNOMIC SUBGROUP	Natural/semi-natural (I.A.8.N)
FORMATION	Rounded-crowned temperate or subpolar needle-leaved evergreen forest (I.A.8.N.b.)
ALLIANCE	<i>Pinus ponderosa</i> Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 1

USFWS WETLAND SYSTEM Upland

RANGE

Globally

This community is in eastern Washington, northeastern Oregon, central and northern Idaho, western, central, and southeastern Montana, northern and eastern Wyoming, and western South Dakota. Johnston (1987) reports that this community is also in Nebraska but its presence there needs to be verified.

Jewel Cave National Monument

This community occurs throughout the Jewel Cave area.

ENVIRONMENTAL DESCRIPTION

Globally

This community is found on moderate slopes (Johnston 1987). The soils are usually loams with a high water holding capacity, but they can be stony or sandy. If they are the latter they tend to occur on north facing slopes with more mesic microclimates (Daubenmire 1952).

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This community occurs on gentle to moderate slopes (0 to 15 degrees) of all aspects.

MOST ABUNDANT SPECIES

Globally

<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Pinus ponderosa</i>
Short shrub	<i>Amelanchier alnifolia</i> , <i>Mahonia repens</i> , <i>Symphoricarpos albus</i>
Herbaceous	<i>Campanula rotundifolia</i> , <i>Galium</i> spp.

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<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Pinus ponderosa</i>
Subcanopy	<i>Pinus ponderosa</i>
Short shrub	<i>Symphoricarpos albus</i>

DIAGNOSTIC SPECIES

Globally

Pinus ponderosa, *Symphoricarpos albus*, *Balsamorhiza sagittata*

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Pinus ponderosa, *Symphoricarpos albus*

VEGETATION DESCRIPTION

Globally

The overstory of this community is dominated by successfully reproducing *Pinus ponderosa*. There are lesser amounts of *Populus tremuloides*, *Betula papyrifera*, *Quercus macrocarpa*, *Juniperus scopulorum*, *Picea glauca*, *Pinus flexilis*, and *Pseudotsuga menziesii*. Hoffman and Alexander (1987) sampled 12 stands of this type that averaged 35.8 m²/ha basal area. The shrub layer is prominent, with cover approaching 100% in some stands (Daubenmire 1952). The common shrubs in this community are *Amelanchier alnifolia*, *Symphoricarpos albus*, *Shepherdia canadensis*, *Mahonia repens*, *Spiraea betulifolia*, *Juniperus communis*, and *Prunus virginiana*. The herbaceous layer is also well developed. Typical species found in this layer are *Achillea millefolium*, *Campanula rotundifolia*, *Galium species*, and *Solidago occidentalis*. Periodic groundfires move through the lower strata of this community. Regeneration after these events is rapid. Within a few years the signs of a fire may be difficult to detect (Daubenmire 1952).

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This community is dominated by *Pinus ponderosa* in both the canopy and subcanopy. Coverage for each stratum typically is 10 to 25%, and occasionally as high as 60%. Short shrub coverage typically is less than 10%, with *Symphoricarpos albus* present but not abundant (less than 10% cover). Other shrubs may be present, including *Juniperus communis*, *Spiraea betulifolia*, *Rhus trilobata*, and *Amelanchier alnifolia*. Herbaceous cover is variable, ranging generally between 10 and 60%. This stratum usually is species-rich, with both graminoids and forbs significant. There are no clear dominants. *Symphoricarpos occidentalis* also occurs in the study area. Where it forms dense thickets, it can be identified vegetatively with confidence. However, it also occurs as scattered individuals under pine, and in these situations it is necessary to have flowering material to differentiate between *S. albus* and *S. occidentalis*.

OTHER NOTEWORTHY SPECIES Information not available.

CONSERVATION RANK G4?

RANK JUSTIFICATION

DATABASE CODE C EGL000203

COMMENTS

Periodic fires are probably important in maintaining the grassland groundlayer and limiting shrub and tree seedling regeneration.

The stands used to document the *Pinus ponderosa* / *Symphoricarpos albus* Habitat Type described by Hoffman and Alexander (1976, 1987) had very high basal area and densities, possibly due to their sampling procedure. Hoffman and Alexander (1987) described two phases of this type, *Oryzopsis asperifolia* phase which is now identified as *Pinus ponderosa* / *Oryzopsis asperifolia* Woodland and the *Balsamorhiza sagittata* phase which remains part of this type. The dense structure may have affected the floristic makeup of the stands. Additionally, there is some ambiguity between this type as a forest or woodland; in increasingly dense stands, this type has >60% canopy closure.

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Stands classified as *Pinus ponderosa* / *Symphoricarpos albus* Forest appear to differ significantly from that type as previously described for the Black Hills (Thilenius 1972, Hoffman and Alexander 1987). Canopy cover typically is less than 60% (and therefore is "Woodland" rather than "Forest"), and *Symphoricarpos albus* typically is sparse.

This type often occurs in mosaics with other pine types. At several plot and observation point locations in the Jewel Cave area, *Arctostaphylos uva-ursi* and *Symphoricarpos albus* were equally common and it was difficult to assign community names to the stands.

REFERENCES

USGS-NPS Vegetation Mapping Program
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